

PTO/SB/21 (09-04)

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<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)  Total Number of Pages in This Submission	Application Number	09/439,194	<b>RECEIVED</b> <b>CENTRAL FAX CENTER</b>  <b>JUN 07 2005</b>
	Filing Date	11/12/1990	
	First Named Inventor	VAN GESTEL	
	Art Unit	2163	
	Examiner Name	U. T. LE	
	Attorney Docket Number	PIIN 15588A	

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application Ser. No.: 09/439,194

Group Art Unit: 2163

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**CENTRAL FAX CENTER**

Filing Date: 11/12/1999

Examiner: U. T. I.E

**JUN 07 2005**

Attorney Docket Number PIN 15588A

Inventor Name(s): VAN GESTEL

Title: TRANSMISSION OF DATA ITEMS

Confirmation Number 1374

Mail Stop Appeal Brief  
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APPEAL BRIEF

Sir:

This is an appeal from the final rejection of Claims 13 and 16-23.

**I. REAL PARTY IN INTEREST**

The real party in interest is Koninklijke Philips Electronics, N.V., a corporation of the Netherlands.

**II. RELATED APPEALS AND INTERFERENCES**

Applicant is not aware of any related appeals or interferences.

**III. STATUS OF CLAIMS**

Claims 13 and 16-23 stand rejected. Claims 1-12 and 14-15 are cancelled.

#### IV. STATUS OF AMENDMENTS

There was no amendment under section 116.

#### V. SUMMARY OF CLAIMED SUBJECT MATTER

The broadest claims are not restricted to a specific field of use, but the preferred embodiment arises out of the field of electronic program guides, particularly for use in television.

##### Claim 13

Claim 13 relates to a data signal. A data signal format in accordance with the preferred embodiment of the invention is illustrated with respect to the timing diagram of figure 3. Figure 3 is described in the specification at page 4, line 27 through page 5, line 13. Figure 4 is a flow chart describing how the signal of Fig. 3 is generated. Figure 4 is described in the specification at page 5, line 14 through page 6, line 2. Figure 5 is a flowchart describing how the signal of Fig. 3 is used in a receiver. Figure 5 is described in the specification at page 6, lines 4-26.

The data signal includes a plurality of data items. These include a field, shown as F in Fig. 3, indicating the number of data items. These also include a plurality of data items, shown as D plus a digit in Fig. 3. Each data item includes an identifier. The data signal is characterized in that the plurality of identifiers form an ordered sequence. The data signal is further characterized in that the field indicating the number of data items includes a first and a second subfield. The subfields represent the range of the sequence of identifiers.

Claim 16

Claim 16 recites an electromagnetic signal for use in a receiving device. The signal embodies a plurality of data items. The recitations are otherwise very similar to those of claim 13.

Claim 17

Claim 17 depends on claim 16. Claim 17 further recites that the first subfield represents a beginning of the range and the second subfield represents an end of the range. This is illustrated by the two numbers within the F fields in Fig. 3.

Claim 18

Claim 18 depends on claim 17. This claim recites a field of application for the signal; and in particular that the first and second subfields enable the receiving device to perform operations. The operations include:

- determining whether a stored set of data items is current and/or complete by comparing the first and second subfields with the identifiers — which is illustrated with respect to the preferred embodiment at 53 in Fig. 5; and
- updating the stored set of data items, with reference to the first and second subfields, in response to determining that the stored set of data items is not current and/or complete — an example of this being illustrated at 58 in Fig. 5.

The result of these operations is recited in claim 18 to be

- o such updating is not conducted unnecessarily when the stored set of data items is still current and/or complete;
- o other operations can be performed in lieu of such unnecessary updating; and
- o the identifiers need not be changed as the range of data items currently transmitted changes.

#### Claim 19

Claim 19 depends from claim 16. Claim 16 recites that the data items are for use in a television.

#### Claim 20

Claim 20 depends from claim 19. It recites that the data items are for use in an electronic program guide for a television.

#### Claim 21

Claim 21 depends from claim 16. Claim 21 further recites that the subfields are modulo-N numbers, where N is the maximum number of data items to be kept track of at a given time.

#### Claim 22

Claim 22 recites an electromagnetic signal embodying a plurality of data items. The data items include:

- a field indicating the number of data items, illustrated for the preferred embodiment by the several instances of the letter F in Fig. 3;
- the plurality of data items, each item including an identifier, illustrated for the preferred embodiment by the several instances of the letter D in Fig. 3;

Claim 22 further recites limitations comparable to 17 and 18.

#### Claim 23

Claim 23 depends from claim 22. Claim 23 further recites that the data items relate to television programming.

#### VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

All of the claims stand rejected under 35 USC section 101. These rejections are all to be reviewed on appeal.

#### VII. THE ARGUMENT

##### Grouping of claim rejections.

First, the rejection groups claims 16-23 together as if they were indistinguishable, when in fact they have very different recitations. Applicant respectfully submits that this grouping fails to satisfy 37 CFR 1.104.

MPEP

Some guidelines for patentability of signals are mentioned at MPEP 2106 IV B. (c). A :

However, a signal claim directed to a practical application of electromagnetic energy is statutory regardless of its transitory nature. See *O'Reilly*, 56 U.S. at 114-19; *In re Breslow*, 616 F.2d 516, 519-21, 205 USPQ 221, 225-26 (CCPA 1980).

Applicant cited this section of the MPEP in the first amendment. The Examiner has failed to respond to this citation. Applicant respectfully submits that this is improper.

Claims 16-23 explicitly recite that the signal is electromagnetic and for use in a receiving device. Various ones of them specify how the signal is useful in the receiving device.

Claims 18 and 22 are clearest in this respect, because they recite that the signal enables listed operations in the receiving device. Applicant will not repeat these as they are listed above in the section summarizing the claims. Claims 18 and 22 further recite the practical results achieved by the signal in the receiving device, as explained above. In this way, these claims are very similar to those in the venerable O'Reilly v. Morse case cited by the MPEP in support of patentability of signals, where one of the claims stated

Eighth. I do not propose to limit myself to the specific machinery, or parts of machinery, described in the foregoing specifications and claims; the essence of my invention being the use of the motive power of the electric or galvanic current, which I call electro-magnetism, however developed, for making or printing intelligible characters, letters, or signs, at any distances, being a new application of that power, of which I claim to be the first inventor or discoverer.

Like that claim, claims 18 and 22, specifically set forth the result that the signals achieve in the receiving device and are therefore statutory.

Claims 13 and 16 further recite a practical use for the signal, namely the signal creates a plurality of identifiers in an ordered sequence & allows them to appear in a range represented by first and second subfields. The specification explains why this is useful and practical.

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Original claim 13, does not specifically recite that the signals are electromagnetic; however, Applicant respectfully submits that other types of signal, such as ultrasound, have no legal distinction over electromagnetic signals. The claim does recite data signals. The claim therefore cannot be read on non-statutory subject matter such as text on paper, mere numbers, or natural phenomena.

Claims 19, 20, and 23 recite that the data items are relevant to television, which is also a field of practical application.

Applicant therefore respectfully submits that claims 16-23 clearly fall within the rubric of the cited MPEP guideline on patentability of signals.

#### Functionality

Instead of applying the standard of patentability set forth in the MPEP as applicable to signals, the Examiner applies the standard applicable to data structures, namely that the material recited must be functional rather than merely descriptive. Applicant respectfully submits that the Examiner has applied the wrong standard.

However, even if that standard does apply, the recitations of the claims are functional rather than descriptive and therefore satisfy the applied standard.

The rejections of claims 18 and 22 are particularly baffling because — as explained before — these claims set forth particular practical applications in the form of operations in a receiving device and also functional advantages due to the claimed signal. These are clearly functional recitations.



Claims 13, 16, and 17 all recite functional interrelationship between the parts of the signal, because the signals contain functional, technical self-description. This is different from just containing descriptive material as that terminology is used in section 2106 of the MPEP, which contains the guidelines for patentability of computer program like material. Descriptive material, as discussed in the guidelines, means material like text or pictures or music. Such material does not have function. When data contains a functional, technical self-description, by contrast, the data becomes more useful to a receiving device, since the receiving device can use the self-description in processing the data in the signal. The following table lists the types of functional, technical self-description to be found in these claims:

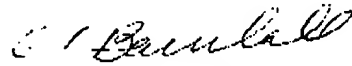
Claim	Function recited
13	a field indicating a number of data items
16	Analogous to 13
17	"wherein the first subfield represents a beginning of the range and the second subfield represents an end of the range"

Claim 21 recites that that the subfields are modulo N numbers, where N is the maximum number of data items to be kept track of at a given time. This functional format allows for more efficient storage of data. This recitation is therefore statutory.

### VIII. CONCLUSION

Applicant respectfully submits that he has demonstrated that the recitations of the claims satisfy 35 USC section 101. Since this is the only rejection, the application must be in condition for allowance. Such allowance is therefore respectfully requested.

Respectfully submitted,

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June 6, 2005

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## CLAIMS APPENDIX

1-12 (cancelled)

- 1 13. (original) A data signal comprising a plurality of data items, comprising:
- 2 a field indicating the number of data items;
- 3 the plurality of data items, each item including an identifier;
- 4 characterized in that the plurality of identifiers form an ordered sequence, and in
- 5 that the field indicating the number of data items comprises a first and a second subfield, said
- 6 subfields representing the range of said sequence of identifiers.

14-15 (cancelled)

- 1 16. (previously presented) An electromagnetic signal for use in a receiving device and
- 2 embodying a plurality of data items, the data items comprising
- 3 • a field indicating the number of data items;
- 4 • the plurality of data items, each item including an identifier;
- 5 wherein
- 6 • the plurality of identifiers form an ordered sequence,
- 7 • the field indicating the number of data items comprises a first and a second subfield,
- 8 • said subfields represent the range of said sequence of identifiers.

17. (previously presented) The signal of claim 16, wherein the first subfield represents a beginning of the range and the second subfield represents an end of the range.

1 18. (previously presented) The signal of claim 17, wherein the first and second subfields enable  
2 the receiving device to perform the following operations:  
3       • determining whether a stored set of data items is current and/or complete by  
4       comparing the first and second subfields with the identifiers; and  
5       • updating the stored set of data items, with reference to the first and second  
6       subfields, in response to determining that the stored set of data items is not current  
7       and/or complete, whereby  
8       ○ such updating is not conducted unnecessarily when the stored set of data items is still  
9       current and/or complete;  
10      ○ other operations can be performed in lieu of such unnecessary updating; and  
11      ○ the identifiers need not be changed as the range of data items currently transmitted  
12      changes.

19. (previously presented) The signal of claim 16, wherein the data items are for use in a television.

20. (previously presented) The signal of claim 19, wherein the data items are for use in an electronic program guide for a television.

21. (previously presented) The signal of claim 16, wherein the subfields are modulo-N numbers, where N is the maximum number of data items to be kept track of at a given time.

1 22. (previously presented) An electromagnetic signal embodying a plurality of data items, the  
2 data items comprising

- 3       • a field indicating the number of data items;  
4       • the plurality of data items, each item including an identifier;

5 wherein

- 6       • the plurality of identifiers form an ordered sequence,  
7       • the field indicating the number of data items comprises a first and a second subfield, said  
8 subfields representing the range of said sequence of identifiers,  
9       • the first subfield represents a beginning of the range and the second subfield represents an  
10 end of the range,  
11       • the first and second subfields are for use in a receiving device in order to enable the receiving  
12 device to perform the following operations:  
13       • determining whether a stored set of data items is current and/or complete by comparing  
14 the first and second subfields with the identifiers; and  
15       • updating the stored set of data items, with reference to the first and second subfields, in  
16 response to determining that the stored set of data items is not current and/or complete,  
17 whereby  
18       ○ such updating is not conducted unnecessarily when the stored set of data items is  
19 still current and/or complete;

- 20           o other operations can be performed in lieu of such unnecessary updating; and
- 21           o the identifiers need not be changed as the range of data items currently transmitted
- 22           changes.

23. (previously presented) The signal of claim 22, wherein the data items relate to television programming.